

Patent Abstracts of Japan

PUBLICATION NUMBER : 03036256
PUBLICATION DATE : 15-02-91

APPLICATION DATE : 30-06-89
APPLICATION NUMBER : 01169387

APPLICANT : MITSUBISHI MOTORS CORP;

INVENTOR : MUSHIAKI MORIYUKI;

INT.CL. : C23C 8/10

TITLE : OXIDATION TREATMENT FOR TITANIUM OR TITANIUM ALLOY

STRACT : PURPOSE: To obtain the desired hardness fitted for the purpose and to improve wear resistance by changing the proportion of O_2 to N_2 in an O_2+N_2 gas in a method for oxidation treatment where Ti and Ti alloy are heated in the above gas.

CONSTITUTION: In a method for oxidation treatment where Ti and Ti alloy are heated in an O_2+N_2 gas to form an oxide layer and oxygen-enriched layer on the surfaces, the proportion of O_2 to N_2 in the above O_2+N_2 gas is changed. When the proportion of O_2 is increased and the proportion of N_2 is decreased, in particular, hardness in the oxygen-enriched layer can be increased and also the depth of diffusion can be increased, and, as a result, wear resistance can be improved. By this method, the oxygen-enriched layer having required hardness distribution can be obtained.

COPYRIGHT: (C) JPO